

# *Field Report*

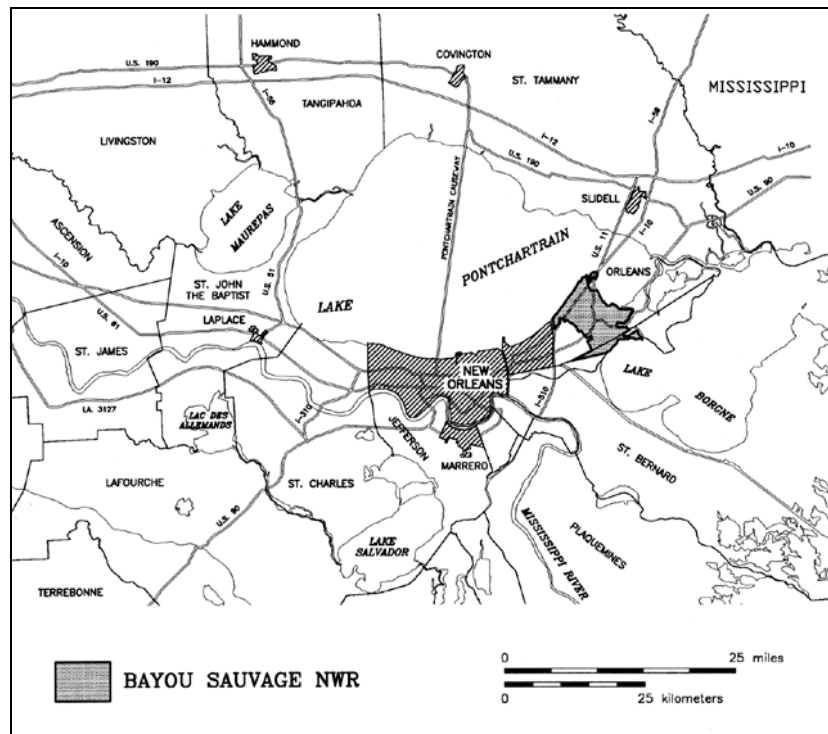
## Bayou Sauvage National Wildlife Refuge

### ■ 1.0 Summary

The Bayou Sauvage National Wildlife Refuge (NWR) is located in east Orleans Parish, Louisiana. The refuge is located entirely within the corporate limits of the City of New Orleans. Figure 1 shows the regional location of the Bayou Sauvage NWR. The refuge is well-used by local residents for recreation (primarily fishing), and also by visitors of New Orleans. Many tourists visit the refuge as part of a Swamp Tour promoted by a private company. Several developments and upgrades are planned for the refuge depending on funding availability, including a Visitor Center, an environmental education center, additional recreation and wildlife observation areas, etc. The ease of access and convenient location of the refuge to more than one million residents in the New Orleans metropolitan area indicates the level of potential public use. In terms of transportation and access, particularly as it relates to alternative modes of transportation, there are opportunities to enhance access to the refuge by public transit (bus service) through coordination with the New Orleans Regional Transportation Authority (RTA). Vehicular access and visibility is excellent at this time, with direct access from three major roadways.

A summary of feasible Alternative Transportation System (ATS) improvements is:

- Continued development of nature trails and observation towers to enhance hiking and nature observation opportunities.
- Extension of the Bayou Sauvage Bikeway to expand the capability of bicycling as a mode of internal transportation on the refuge and a link with the regional bikeway.
- In the future, extension of bus routes 98 and 99 to the planned refuge Visitor Center and/or Environmental Education Complex may be warranted to enhance access to the general public and visitors of New Orleans.
- Depending on usage levels when the master plan is complete or near completion, regular shuttle service between different attractions on the refuge itself may be warranted. This will reduce the number of vehicles traveling within the refuge and instead carry people to different locations where they can walk, hike, bike to observe and learn about refuge resources. For larger groups of visitors, or classroom field trips, shuttle service between refuges within the complex could be useful to demonstrate the range of different habitats and species.

**Figure 1. Regional Location Map**

## ■ 2.0 Background Information

### 2.1 Location

Bayou Sauvage NWR, established in 1986, is one of seven national wildlife refuges that make up the Southeast Louisiana Refuges Complex. The nearest refuge is Big Branch Marsh NWR, located immediately to the north across Lake Ponchartrain. The location of Bayou Sauvage makes it the largest urban wildlife refuge in the nation. It is located approximately 18 miles east of the New Orleans Central Business District and offers visitors a chance to view species in their natural habitat next door to a busy urban environment. Refuge headquarters for the Southeast Louisiana Refuges is located in Slidell, approximately 15 miles east of the refuge.

As shown in Figure 2, the refuge is located on both sides of Interstate 10 (I-10) between Lake Ponchartrain and Lake Borgne. Access to the refuge is from three major roadways:

- **I-10** – Major east-west interstate freeway linking New Orleans with Baton Rouge to the west and Mississippi to the east;
- **U.S. Highway 90** – East-west highway; and
- **U.S. Highway 11** – North-south highway linking U.S. 90 and I-10 and passing through the center of the refuge.



Figure 3. Existing Refuge Boundaries





## 2.4 Mission and Goals of the Wildlife Refuge

The USFWS completed a Master Plan for Bayou Sauvage in October 1994. The master plan sets forth the goals of the refuge as follows:

1. **Habitat Preservation** – To maintain and restore the presence, natural diversity, productivity, vigor, and natural integrity of all natural habitats;
2. **Fish and Wildlife Resource Protection** – To enhance, maintain, and protect the natural diversity of fish and wildlife species in balance with their habitats;
3. **Archaeological Resource Protection** – To identify, preserve, describe, and interpret archaeological resources;
4. **Public Use** – To provide public use in the form of environmental education, wildlife and habitat interpretation, wildlife/wildlands-oriented recreation, and scientific research in a manner that is not detrimental to habitat, fish, wildlife, or archaeological resources; and
5. **Environmental Integrity Goal** – To foster a strong natural resource stewardship ethic on the refuge, in the New Orleans Metropolitan area, the state of Louisiana and the nation.

## 2.5 Visitation Levels and Visitor Profile

Refuge management estimates that annual visitor levels are approximately 500,000. Given the proximity of the refuge to a major tourist destination (French Quarter) and downtown New Orleans, visitors can range from locals who fish on a regular basis, to foreigners wishing to take a swamp tour on the refuge. The Master Plan includes a summary of an assessment on the Refuge Market and Demand completed during the creation of the refuge. According to the study, projected visitor attendance ranged from a low of 327,000 to a high of 671,000. Estimated visitor mix is as follows:

• Local Resident	30 percent
• Drive-by	29 percent
• Tourist	40 percent
• Conventioneer	1 percent
<b>Total</b>	<b>100 percent</b>

Currently, there is no refuge-managed Visitor Center. However, a concessionaire, *New Orleans Swamp Tours*, has constructed a building on private property adjacent to refuge lands property to sell tickets and operate the swamp tours on the refuge. This is supposedly the only private concessionaire operating within any of the NWRs. Four tours with a boat capacity of 60 people are conducted daily. Information and brochures for the refuge are located at the building and swamp tour operators have a cooperative agreement with

the refuge to promote public use of the refuge. Signs for the refuge and for swamp tours are located along I-10. On- and off-ramps from east- and westbound I-10 provide access to the building. The Master Plan includes a conceptual plan for a new Visitor Center that would include interactive and interpretive displays. This center would be located adjacent to the existing swamp tour concessionaire building directly off I-10. An observation deck and walkways, as well as trailheads for hiking and canoe trips would be located at the Visitor Center. An environmental education center in the vicinity of the U.S. 90/U.S. 11 intersection is also part of the master plan. Figure 4 illustrates the conceptual designs.

**Figure 4. Aerial View of Visitor Center, Entrance to Visitor Center, and Environmental Education Village (Proposed)**



Although the Refuge does not have a Visitor Center at this time, there is a New Orleans East Visitor Center on I-10 which provides information about the Refuge. This Visitor Center is operated by the New Orleans Visitors Bureau.

## ■ 3.0 Existing Conditions, Issues and Concerns

### 3.1 Transportation Conditions, Issues and Concerns

As stated earlier, access to the refuge is provided by three major roadways: I-10, U.S. 90 and U.S. 11. Signage along these roadways advertises the location of the refuge appropriately. The greatest number of signs is along I-10, which enhances the potential to draw drive-by visitors or tourists to the swamp tour where they can obtain additional refuge information. Because U.S. 90 and U.S. 11 are generally two-lane highways, they provide access to specific refuge locations such as trailhead parking lots, boat launches and fishing piers. Visitors unfamiliar with the Refuge tend to access the refuge from I-10. Local residents familiar with roadways and refuge uses tend to use U.S. 90 and U.S. 11.

Small graveled parking areas are located throughout the refuge. Figure 5 shows a typical parking area. This location has restrooms and provides refuge information. It also serves as a trailhead for a boardwalk that leads to an observation deck.

**Figure 5. Typical Refuge Parking Area**



Bicycling is also a form of transportation and recreation on the refuge. Bayou Sauvage has developed a bike pathway that follows the hurricane protection levee on the north side of the refuge along Lake Ponchartrain. The bikeway, shown in Figure 6, was completed in 1998 with federal ISTEA money. The path parallels a railroad and offers outstanding views of the refuge and Lake Ponchartrain. The bikeway is approximately five miles long. The south end of the bike path can be accessed on the north side of I-10 across from the Swamp Tour concessionaire and proposed location of the future Visitor Center. The north end of the bikeway is accessible near the junction of I-10 and U.S. 11, near the community of Irish Bayou. A bikeway extension is planned in the future. Mountain bikers can also use unpaved levee tops as a bicycle trail. This bikeway is part of the 200 mile “Ring Around the Lake” bikeway that the Regional Planning Commission has endorsed. When completed, a bicyclist can make the entire 200 plus mile trip.

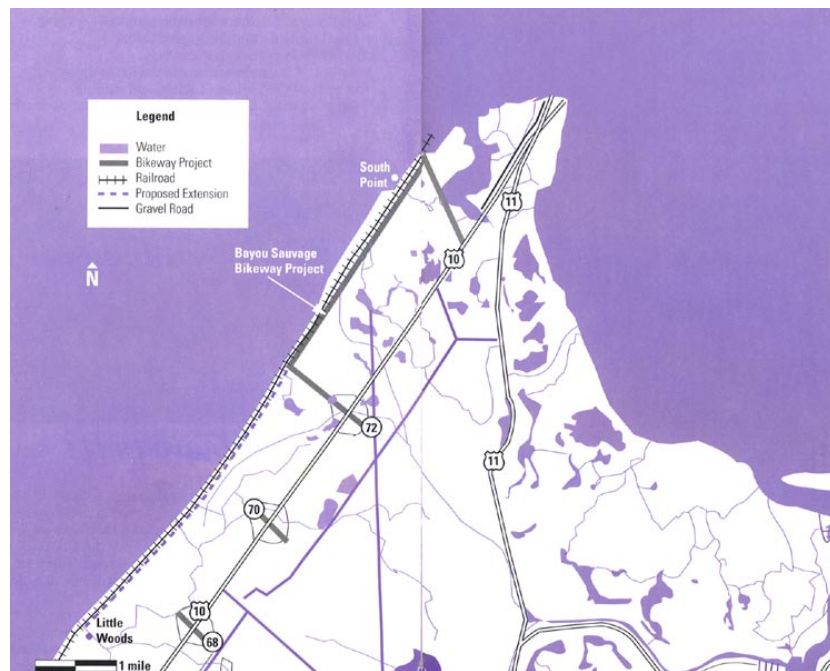
At the current time, issues associated with the bikeway path are:

- Repair of the bikeway where the adjacent railroad damaged the trail as a result of accessing the railroad for repairs following a storm. Coordination with the railroad is underway to repair the bikeway (see Figure 7).
- Extension of the bikeway path to the southwest to connect with other sections of “Ring Around the Lake.”

Big Branch Marsh refuge to the north also offer bicycling opportunities. The metropolitan planning organization has also completed about 30 miles of the Tammany Trace paved bike path, which provides access to several refuge locations. The Tammany Trace path is another section of the “Ring Around the Lake” bikeway.

RTA operates two bus routes (Routes 98/99) that terminate approximately two miles west of the refuge boundary near the NASA complex. Route 98 operates at 20-30 minutes headways, while 99 operate at one-hour headways. Limited Saturday service is provided by both routes. These routes operate on U.S. 90 and terminate just east of Michoud Boulevard.

**Figure 6. Refuge Bikeway**



**Figure 7. Refuge Bikeway (with Damage)**





### **3.2 Community Development Conditions, Issues and Concerns**

The City of New Orleans is involved in a range of planning and development activities typical to a large city. Communities such as New Orleans East and Irish Bayou are located nearest to the refuge. New Orleans East is the largest and most active community in terms of economic development and transportation issues. The New Orleans East Economic Development Foundation holds biweekly meetings to discuss business retention, development initiatives, transportation and other planning issues. The site visit team attended one of the meetings with a representative of Bayou Sauvage NWR on the second day of the site tour. At this meeting it was evident that community leaders recognize that the refuge is an asset to the community. Various developments and transportation issues were addressed at the meeting:

- **Jazzland Development** – A regional entertainment and amusement center with supportive development such as retail, restaurant, hotels, etc. This is expected to open in May 2000.
- **Potential New Racetrack Development** – New automobile racetrack; controversial issue in the community.
- **Potential Expansion of Rail Transit into New Orleans East** – A presentation at the meeting indicated that fixed guideway transit services could promote economic development potential in the community. The RTA has made no plans for rail extensions to the area.

Implementation of any of the above development projects could influence visitor levels at the refuge. The lowest potential is associated with the racetrack project. However, there have been discussions related to potential shuttle service from Jazzland establishments to the refuge. Development of Jazzland will increase overall visitor levels to the immediate area and has the greatest potential to enhance the visibility and use of the refuge, particularly if refuge programs are marketed at Jazzland establishments.

The Master Plan estimates ongoing economic benefits generated annually when the refuge is fully developed to be:

- Visitor spending of \$4 million per year;
- Facility budget spending of \$1.4 million per year; and
- Gross economic impact of \$8.4 million per year

This represents a significant contribution to the City of New Orleans and surrounding communities.

One concern that Bayou Sauvage has with regard to the community, and that is fairly unique due to its urban setting, is dumping and criminal activity. While nighttime use is not permitted, a lack of enforcement during nighttime hours results in extensive dumping and disposal of evidence associated with gang-related and insurance crimes. These actions detract from the attractiveness and safety of the refuge and may influence visitors levels and/or pollute resources.

### **3.3 Natural or Cultural Resource Conditions, Issues and Concerns**

Emergent marsh, natural levee ridge, spoil banks, and shallow open water bodies constitute a wide interspersed of habitats within the refuge. These habitats allow for a good level of biological productivity and accommodate a high diversity of land and water species. Because most the refuge is located inside protection levees, natural water flow is interrupted. This presents a challenge for the refuge to maintain productive wetlands in this altered environment. The goals of the refuge is to manage Bayou Sauvage in as natural a state as possible under the conditions.

Freshwater lagoons, bayous, and ponds provides excellent habitat for fish, including largemouth bass, crappie, bluegill, catfish and large numbers of shore and wading birds, ducks and other waterfowl. Low- to medium-salinity brackish water estuaries function as nurseries for a variety of marine life including redfish, trout, shrimp, crab, and flounder.

From fall through early spring, a large number of migratory waterfowl occupy the refuge. Some duck are year-round residents. A large wading bird rookery can be found in the swamp areas of the refuge from May through July. Other animals such as white tailed deer, hogs, swamp rabbits, squirrels, bobcats, coyote, otters, and a variety of reptiles and amphibians are also located throughout the refuge.

Five federally listed threatened and/or endangered species on the refuge include the bald eagle, Arctic peregrine falcon, brown pelican, Gulf of Mexico sturgeon, and American alligator.

Issues associated with natural resources include:

- The primary issue is careful management of how the levee system influences refuge habitat; and
- Continuing natural and man-induced erosion associated with subsidence, winds, waves, and vertebrate herbivory outside the protection levees.

### **3.4 Recreation Conditions, Issues and Concerns**

Bayou Sauvage is a day-use only refuge. Public recreation uses at the refuge include fishing, hiking, wildlife observations, public, group and individual tours and trips (canoe, bike, hike, bird watching) are also offered by the refuge. The environmental education staff indicate that tours are often booked several months in advance, especially for week-end use and school groups.

Sport fin fishing and shell fishing are the primary consumptive recreational uses at the refuge. These uses are permitted at a level compatible with refuge objectives by designated areas for such uses. Fin fishing and shell fishing is permitted year-round on all refuge lands south of the Intracoastal Waterway, from the banks of U.S. 11, and within the banks of the borrow canal and borrow pits between U.S. 11 and I-10. Several boat launches and fishing piers are located throughout the refuge. Hunting is not allowed.

However, if additional lands that currently have private hunting grounds are acquired, hunting will probably become a recreation use.

Bicycling, discussed in the transportation section, is also a recreational use on the refuge.

No major issues or concerns beyond typical enforcement of rules and regulations were noted with respect with the majority of recreational uses.

## ■ 4.0 Planning and Coordination

### 4.1 Unit Plans

The Bayou Sauvage Master Plan and Environmental Impact Statement (EIS) contain concepts to guide further development and implementation of land use and management programs and associated facilities and management structure. Implementation of the Master Plan is presented in phases of development:

- **Phase I (First Year)** – Visitor/Interpretive Center, Administrative and Maintenance Complex, Environmental Education Center (Phase I), Limited Outdoor Environmental Education and Recreation Facilities (Phase I) and Real Estate Acquisition.
- **Phase II (Second Year)** – Environmental Education Center (Phase II), Additional Outdoor Environmental Education and Recreation Facilities (Phase II), Habitat Restoration and Enhancement.
- **Phase III (Third Year)** – Completion of Outdoor Environmental Education and Recreation Facilities (Phase III)
- **Phase IV (Fourth Year)** – Habitat Management Facilities/Structures; addressed through other agencies to assist in habitat management

A limited number of improvements have been made since the Master Plan, including the bikeway path, various boat launches, piers and boardwalk trails. Major projects such as the Visitor Center and Environmental Education Center have not been moved forward but are integral to an increased presence on the refuge and attainment of the public use goal. Current plans call for Southeast Louisiana Refuges Headquarters and associated agency offices to be maintained in LaCombe, near the Big Branch Marsh refuge on a former school complex. The refuge is negotiating with GSA to have a 10,500 square foot facility constructed at the U.S. 11/U.S. 90 junction to serve as an Environmental Education and Visitor Center.

## **4.2 Public and Agency Coordination**

Bayou Sauvage has a fairly good relationship with the public and local communities and agencies. New Orleans East is a largely minority and lower-income community and is not as active in refuge activities as are communities closer to other refuges in the complex. Smaller communities such as Irish Bayou and Venetian Isles are very supportive of the refuge and its goals. On occasion, Bayou Sauvage staff attend the New Orleans East Economic Development Foundation meetings. Limited coordination has been conducted with the RTA or metropolitan planning organization to coordinate and discuss potential transit access improvements and development activities. The Regional Planning Commission supports the Bayou Sauvage bikeway as part of the regional “Ring Around the Lake” bikeway.

# **■ 5.0 Assessment of Need**

## **5.1 Magnitude of Need**

The need for ATS is limited at this time. However, the need for alternative transportation can be expected to increase as the following occurs:

- Implementation of the master plan recommendations, particularly the Visitor Center and the Environmental Education Village complex. These two locations will enhance the use and attractiveness of the refuge to both the general public and visitors and may warrant the extension of bus service to the refuge from the City of New Orleans.
- Continued development of east New Orleans. As the surrounding community develops, it will present additional attractions in the immediate vicinity of the area. It is envisioned that the swamp tour operations and hotels will shuttle visitors to the refuge for special activities or general day use. Development of the Jazzland amusement complex will present significant opportunities and planning issues.

## **5.2 Feasible Alternatives**

- Continued development of nature trails and observation towers to enhance hiking and nature observation opportunities.
- Extension of the Bayou Sauvage Bikeway to expand the capability of bicycling as a mode of internal transportation on the refuge and a link with the regional bikeway.
- In the future, extension of bus routes 98 and 99 to the planned refuge Visitor Center and/or Environmental Education Complex may be warranted to enhance access to the general public and visitors of New Orleans.



- Depending on usage levels when the master plan is complete or near completion, regular shuttle service between different attractions on the refuge itself may be warranted. This will reduce the number of vehicles traveling within the refuge and instead carry people to different locations where they can walk, hike, bike to observe and learn about refuge resources. For larger groups of visitors, or classroom field trips, shuttle service between refuges within the complex could be useful to demonstrate the range of different habitats and species.

## ■ 6.0 Bibliography

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*Fulfilling the Promise, The National Wildlife Refuge System, March 22, 1999.*

*Bayou Sauvage and Big Branch Marsh National Wildlife Refuges Fall 1999 Calendar Brochure.*

*Bayou Sauvage National Wildlife Refuge Fishing and Public Use Regulations Brochure.*

*Southeast Louisiana National Wildlife Refuges Brochure.*

*Bayou Sauvage National Wildlife Refuge Bike Pathway Brochure.*

*New Orleans Swamp Tours Brochure.*

## ■ 7.0 Persons Interviewed

Pon Dixon, Refuge Manager

New Orleans East Economic Development Foundation Meeting